

REMARKS

By the above amendment, the specification has been amended in a manner which should overcome the objection to the disclosure regarding the brief description of the drawings and other informalities in the specification have been corrected.

Additionally, by the present amendment, claims 7 - 11 have been canceled without prejudice or disclaimer of the subject matter thereof and new claims 12 - 23 presented wherein claims 12 and 13 are new independent claims and claims 14 - 23 are dependent therefrom.

New independent claims 12 and 13 are directed to the structural arrangement as more clearly illustrated in Figures 1 and 2 of the drawings of this application in which, as described and as illustrated in Fig. 1(a), there is provided an atmospheric block 101 including a transfer box 108 having a transfer robot disposed therein for transferring a wafer from a plurality of wafer cassettes installed at a front surface portion thereof under an atmospheric condition to a vacuum transfer chamber 112 disposed at a rear surface portion of the transfer box and detachably connected thereto by way of load lock chambers 113, as illustrated in Fig. 2(a), for example. It is noted that a vacuum block 102 is provided at the rear of the transfer box or atmospheric block 101 and includes the vacuum transfer chamber which enables transfer of a wafer therein under a vacuum condition to a vacuum processing chamber 103 or 104 disposed at a rear or side of the vacuum transfer chamber. In accordance with the present invention, as illustrated in Figs. 2(a) and 2(b) and as described at pages 15 and 16 of the specification of this application, a connection interface 201 is disposed on the rear side portion of the atmospheric block 101 or transfer box 108 and serves for connecting supply lines such as pipes for gases and refrigerants from separate locations or lines from the power sources. As a connector

portion is provided between the vacuum processing apparatus and the building in which the apparatus is installed for supplying from the building, utilities such as gas, water and air to the apparatus and discharging exhaust from the apparatus and is disposed substantially linearly under an entry port for transferring the wafer into a vacuum. More particularly, as described in the paragraph bridging pages 15 and 16 of the specification, the supply routes for various utilities are connected via the connection interface unit 201 to the supply path and extend to the processing block 102 so that the supply lines, pipes and power lines extend from the connection interface unit 201, pass below the lock chamber unit 113 and below the center of the transfer chamber 112. Applicants note that pages 16 - 19 describe the advantages obtained by this structural arrangement and applicants submit that by the present amendment, independent claims 12 and 13 and the dependent claims recite the aforementioned features, which applicants submit are not disclosed or taught in the cited art, as will become clear from the following discussion.

The rejection of claims 7 - 8 and 11 under 35 USC 102(b) as being anticipated by US Patent No. 6,312,525 to Bright et al and the rejection of claims 9 and 10 under 35 USC 103(a) as being unpatentable over Bright et al, such rejections are traversed insofar as they are applicable to the present claims and reconsideration and withdrawal of the rejections are respectfully requested.

As to the requirements to support a rejection under 35 USC 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that

reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

With regard to the requirements to support a rejection under 35 USC 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under '103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Furthermore, such requirements have been clarified in the decision of In re Lee, 61 USPQ 2d 1430 (Fed. Cir. 2002) wherein the court in reversing an obviousness rejection indicated that deficiencies of the cited references cannot be remedied with conclusions about what is "basic knowledge" or "common knowledge". The court pointed out:

The Examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question of motivation is immaterial to patentability, and could not be resolved on subjected belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher."... Thus, the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. (emphasis added)

Irrespective of the Examiner's contentions concerning Bright et al, applicants note that Figure 1 of Bright et al may be considered to illustrate a factory interface module 18 which includes a robot 306 for transferring wafers from pod loaders or cassettes under an atmospheric condition and load lock chambers 16 detachably connected thereto and being connected to a vacuum transfer chamber 22 having processing chambers 14 connected therewith for transferring a wafer under vacuum conditions. As shown in Figures 2 and 4 of Bright et al, the load lock chambers 16 and vacuum transfer module 12 are supported by a platform 26 and provided on the platform 26, as illustrated in Fig. 4, is a facilities panel box 48, wherein conduits 46 disposed within the platform 26 extend between the facilities panel 48 and interface panels 44 deliver facilities that are required by the process chamber modules 14 to carry out their respective processes. Irrespective of the contentions by the Examiner, it is readily apparent that the facilities panel 48 of Bright et al does not represent "a plurality of connector portions of utility paths being disposed substantially linearly under a connecting portion of the transfer box and the vacuum transfer chamber, and being disposed at the rear surface portion of the transfer box"

(emphasis added), as recited in each of new independent claims 12 and 13, and the dependent claims of this application. Assuming arguendo, that the facilities panel 48, as shown in Figure 4 of Bright et al, may be considered to provide a plurality of connector portions, it is readily apparent that such facilities panel is not disposed substantially linearly under a connecting portion of the transfer box and the vacuum transfer chamber and is not disposed at the rear surface portion of the transfer box in which a robot for transferring a wafer under an atmospheric condition is provided. Applicants submit that such features as recited in independent claims 12 and 13 are not disclosed by Bright et al in the sense of 35 USC 102 or suggested by Bright et al in the sense of 35 USC 103. Accordingly, applicants submit that independent claims 12 and 13 and the dependent claims thereof patentably distinguish over Bright et al in the sense of 35 USC 102 and 35 USC 103, and should be considered allowable thereover.

Applicants further note that the independent claims recite further structural features concerning the location of a vacuum transfer chamber and a vacuum processing chamber with respect to the transfer box, noting that claims 15 - 17 and 20 - 22 further define the features that the location of the connector portions of the utility paths are disposed under at least one load lock chamber consisting of the connecting portion between the transfer box and the vacuum transfer chamber, and that the connector portions of the utility paths connect with paths arranged under a floor of the building in which the vacuum processing apparatus is installed.

Furthermore, dependent claims 18 and 23 recite the feature of display units, as represented by the display unit 202, as illustrated in Figs. 2(a) and 2(b) of the drawings of this application which are disposed at the rear surface portion of the transfer box and display a status of the utility as described in the paragraph bridging

pages 16 and 17 of the specification, for example. Applicants submit that the dependent claims recite further features of the present invention not disclosed or taught by Bright et al such that these claims should be considered allowable with the parent independent claims.

In view of the above amendments and remarks, applicants submit that all claims present in this application patentably distinguish over the cited art and should now be in condition for allowance. Accordingly, issuance of an action of favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 648.43120CC2), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Melvin Kraus
Registration No. 22,466

MK/jla
(703) 312-6600